

NFPA DESIGNATION 704



MATERIAL SAFETY DATA SHEET

SECTION 1 NAME AND PRODUCT

HAZARD RATING	HEALTH	1
4=Extreme		
3=High	FIRE	0
2=Moderate		
1=Slight	REACTIVITY	0
0=Insignificant		
	SPECIFIC HAZARD	NONE

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 TITLE: Manager, Materials R/D
 DATE: August 15, 1987

TRADE NAME, COMMON NAME OR SPECIFICATION: Sunnen Honing Stones: A, J and C Abrasive (Example: K10-A57 or P28-C07), or AHU, CR, EEU, EAU, EHM, EMU, EKN, ENN, EKV, ENU, EVA, EUG, HB, JHU, JUA, JUG, KL, LH, LJ, ML, PL, RY, RYY, SC, SL, SYU, UL, XHB and XSC Prefix (Example: JNU-625). CHEMICAL FAMILY: Mixture. Vitrified or Superabrasive Honing Stone that may contain various fillers and organic binders mounted on a Zinc holder. CLASSIFICATION: Machine, Machine Parts. D.O.T. SHIPPING CLASS: Class 85

SECTION 2 HAZARDOUS INGREDIENTS/IDENTITY (PER 29 C.F.R. 1910.1200(g))

COMMON NAME	CHEMICAL NAME OF COMPONENTS	CAS NO	OSHA PEL	ACGIH TLV-TWA	CARCINOGENIC
STONE HOLDER					
ZAMAK	ZINC	7440-66-6	5.0 as oxide fume	5.0 as oxide fume	N
COPPER	COPPER	7440-50-8	1.0 / 0.1 fume	1.0 / 0.2 fume	N
ALUMINUM	ALUMINUM	7429-90-5	NONE	10 dust	N
MAGNESIUM	MAGNESIUM	7439-95-4	15 as oxide fume	10 as oxide fume	N
ABRASIVE					
ALUMINUM	ALUMINUM OXIDE	1344-28-1	15 Total Dust	10 Total Dust	N
CRYSTOLON	SILICON CARBIDE	409-21-2	15 Total Dust	10 Total Dust	N
FLUORIDES	FLUORIDES (as F)	NONE	2.5	2.5	N
ABRASIVE BOND SYSTEM					
TIN	TIN	7440-31-5	2.0	2.0 / 2.0 fume	N
WAX	PARAFFIN	8002-74-2	NONE	2.0 fume	N
FIBERGLASS	GLASS, FIBROUS OR DUST	NONE	5.0 as Respirable Dust	10	N
SULFUR	SULFUR	7704-34-9	13 as Dioxide Fume	5.0 as Dioxide Fume	N
LIME	CALCIUM OXIDE	1305-78-8	5.0	2.0	N
ADHESIVE					
CAMPOR	CAMPOR	76-22-2	2.0	12	N

FOR FURTHER SAFETY AND HEALTH INFORMATION REGARDING THE COMPOSITION OF THIS MATERIAL CONTACT SUNNEN PRODUCTS.

SECTION 3 PHYSICAL & CHEMICAL CHARACTERISTICS

SPECIFIC GRAVITY (WATER=1)-----5 (APPROX)	VAPOR DENSITY (AIR=1) ---NOT VOLATILE
MELTING POINT-----> 728 F (387 C) HOLDER	EVAPORATION RATE -----NOT VOLATILE
PERCENT VOLATILE BY WEIGHT-----NOT VOLATILE	SOLUBILITY IN WATER-----NOT SOLUBLE
VAPOR PRESSURE (mm Hg)-----NOT VOLATILE	REACTIVITY IN WATER-----STONE HOLDER WILL SLOWLY CORRODE.
APPEARANCE AND ODOR-----SOLID OBJECT	

SECTION 4 SPECIAL PRECAUTIONS: None Refer to MSDS Section 7 & 8

SECTION 5 CORROSIVITY AND REACTIVITY DATA STABILITY: Material is stable under normal conditions of transport and storage. POLYMERIZATION: Hazardous polymerization will not occur. INCOMPATIBILITY (MATERIALS TO AVOID): Acids of all types with PH < 4.0, bases or strong oxidizing agents. HAZARDOUS DECOMPOSITION PRODUCTS: Metal fumes if heated. Oxides of Nitrogen as oxidation products of cement.

SECTION 6 HEALTH, FIRST AID AND MEDICAL DATA. ACUTE AND CHRONIC HEALTH EFFECTS AND EFFECTS OF OVEREXPOSURE

OPERATIONS SUCH AS ABRADING, MELTING, WELDING, CUTTING OR PROCESSING IN ANY OTHER FASHION MAY PRODUCE POTENTIALLY HAZARDOUS DUST OR FUMES WHICH CAN BE INHALED, SWALLOWED, OR COME IN CONTACT WITH THE SKIN OR EYES. Dust or fume may cause irritation to the eyes, nose, or throat; leave a metallic taste in the mouth; result in metal fume fever (flu-like symptoms). Symptoms may be aggravated for sensitive individuals with respiratory conditions (such as emphysema). Persons with light skin, sensitive skin or large amounts of body hair may experience skin disorders from contact with metal fines.

ABBREVIATIONS USED IN THE FOLLOWING SECTION: NAIF=NO APPLICABLE INFORMATION FOUND, SKIN=SKIN ABSORPTION, EYE=EYE CONTACT, INHAL=INHALATION, INGEST=INGESTION

ALUMINUM: ACUTE: SKIN: May cause skin irritation. EYE: Dust may cause swelling and injury to the eye. INHAL: Nuisance dust. INGEST: NAIF. CHRONIC: SKIN: NAIF. EYE: NAIF. INHAL: May cause irritation of the mucous membranes of the upper respiratory system. INGEST: NAIF.

CALCIUM OXIDE: ACUTE: SKIN: Irritating and may be caustic to the skin. May produce burns or dermatitis with flaking skin and rash. EYE: Irritating and may be caustic to eye. INHAL: Irritating and may be caustic to the mucous membranes of upper respiratory tract causing inflammation and damage. INGEST: NAIF. CHRONIC: SKIN: NAIF. EYE: NAIF. INHAL: Bronchitis and lung disease. INGEST: NAIF.

CAMPOR: ACUTE: SKIN: May cause skin irritation. EYE: May cause eye irritation. INHAL: Irritates mucous membranes. Affects central nervous system causing nausea, vomiting, diarrhea, headaches, dizziness, excitement, irrational behavior and convulsions. INGEST: Irritates mucous membranes. Affects central nervous system causing nausea, vomiting, diarrhea, headaches, dizziness, excitement, irrational behavior and convulsions. CHRONIC: SKIN: NAIF. EYE: NAIF. INHAL: NAIF. INGEST: NAIF.

COPPER: ACUTE: SKIN: Changes causing hard or horny skin located on the hands and the soles of the feet has been reported. Copper salts may cause skin irritation (itching, redness and dermatitis). EYE: Copper salts may cause swelling, ulceration and cloudy cornea. INHAL: Melting, grinding, cutting of copper may produce fumes or dust exposure and breathing these fumes or dust may present health hazards. Fumes of copper may cause "Metal Fume Fever" with flu-like symptoms and skin and hair discoloration. Copper dust and fume may cause irritation of the upper respiratory tract, metallic taste in the mouth, and nausea. INGEST: Salts of copper act as irritants producing salivation, nausea, vomiting, stomach pain, bleeding stomach inflammation and diarrhea. CHRONIC: SKIN: NAIF. EYE: NAIF. INHAL: Ulceration with perforation of the nasal septum. INGEST: Individuals with Wilson's disease (hepatolenticular degeneration) can experience fatal intoxication.

FLUORIDES: ACUTE: SKIN: May cause skin irritation. EYE: May cause eye irritation. INHAL: Irritating to the mucous membranes and lungs. INGEST: Nausea, vomiting, abdominal cramps, and diarrhea. CHRONIC: SKIN: Can cause systemic effects of fluoride poisoning by absorption thru the skin. EYE: NAIF. INHAL: Nosebleeds and sinus trouble. Inhalation of excessive concentration of elemental fluorine can cause irreparable damage to the lungs and death. INGEST: Large doses produce central nervous system involvement with twitching of muscle groups, convulsions and coma. Fluorides are retained in bone, and excessive intake may result in an bone disease that is recognizable by x-ray.

GLASS, FIBROUS OR DUST: ACUTE: SKIN: May cause skin irritation. EYE: May cause eye irritation. INHAL: May irritate the upper respiratory tract. INGEST: NAIF. CHRONIC: SKIN: NAIF. EYE: NAIF. INHAL: Fibers smaller than 3.5 μ m have the ability to penetrate to the air cells of the lung. INGEST: NAIF.

MAGNESIUM: ACUTE: SKIN: NAIF. EYE: NAIF. INHAL: NAIF. INGEST: NAIF. CHRONIC: SKIN: NAIF. EYE: NAIF. INHAL: NAIF. INGEST: NAIF.

PARAFFIN: ACUTE: SKIN: May cause irritation. EYE: NAIF. INHAL: NAIF. INGEST: NAIF. CHRONIC: SKIN: Dermatitis, clogged pores and blackheads. EYE: NAIF. INHAL: NAIF. INGEST: NAIF.

SILICON CARBIDE: ACUTE: SKIN: Dust may irritate skin. EYE: Dust may irritate eyes. INHAL: Nuisance particulate. INGEST: NAIF. CHRONIC: SKIN: NAIF. EYE: NAIF. INHAL: Progressive lung disease. INGEST: NAIF.

SULFUR: ACUTE: SKIN: NAIF. EYE: May irritate the eyes. INHAL: May cause excessive tissue fluid in the lungs. Gaseous sulfur dioxide is irritating to mucous membranes of the upper respiratory tract. INGEST: Not toxic. Used in medicine as a laxative. CHRONIC: SKIN: NAIF. EYE: NAIF. INHAL: Chronic exposure may result in inflammation of the nose, fatigue, altered sense of smell, and chronic bronchitis. Symptoms are shortness of breath, cough, and increased mucous excretion. Animal experimentation has indicated that sulfur dioxide may be a possible co-carcinogenic agent. INGEST: NAIF.

TIN: ACUTE: SKIN: May cause skin irritation. EYE: May irritate eyes. INHAL: May irritate the mucous membranes. INGEST: Literature reports the toxicity is low. CHRONIC: SKIN: NAIF. EYE: NAIF. INHAL: Exposure to the dust or fumes of tin oxide can result in a benign lung disease called stannosis. No tissue reaction or breathing disorder has been associated with this lung condition. INGEST: NAIF.

ZINC: ACUTE: SKIN: Zinc oxide may produce a dermatitis called "oxide pox" due primarily to clogging of the sweat glands. EYE: NAIF. INHAL: Can cause flu like symptoms beginning four to twelve hours after exposure. Causes sweet or metallic taste in the mouth, dryness and irritation of the throat. Fever and shaking chills then develop. Symptoms last 24 to 48 hours. INGEST: NAIF. CHRONIC SKIN: NAIF. EYE: NAIF. INHAL: NAIF. INGEST: NAIF.

EMERGENCY FIRST AID

INHALATION: Remove to fresh air. If not breathing, begin mouth to mouth resuscitation. Seek medical attention.
EYE CONTACT: Remove contact lenses (if wearing) and flush eyes with water to remove particulates. Seek medical attention to check for possible irritation. **SKIN CONTACT:** Brush off excess dust. Wash hands with mild non-abrasive soap and water. **INGESTION:** Seek medical attention.

SECTION 7 HANDLING, STORAGE AND USE PROCEDURES NORMAL STORAGE AND HANDLING: No special procedures required. NORMAL USE: No special procedures required. STEPS TO BE TAKEN IN CASE OF LEAKS OR SPILLS: Treat chips or dust as metal alloys. WASTE DISPOSAL METHODS: Dispose of in accordance with applicable federal, state and local laws, regulations, rules, orders and ordinances.

SECTION 8 PERSONAL PROTECTION INFORMATION RESPIRATORY PROTECTION: If conditions of use (Dry Honing, cutting, grinding, welding, brazing or soldering of stone) give rise to dust use NIOSH approved respirator rated for metal dust to maintain levels of dust below ACGIH and OSHA TLV/PEL levels. VENTILATION: If conditions of use (Dry Honing, cutting, grinding, welding, brazing or soldering of stone) give rise to metal fumes use forced ventilation to maintain levels of fumes below ACGIH and OSHA TLV/PEL levels. SKIN PROTECTION: Not required. EYE PROTECTION: Always wear approved safety glasses when honing or operating machinery. See OSHA 29 CFR 1910.133. OTHER EQUIPMENT: No applicable information found. MEASURES TO BE TAKEN DURING REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT THAT HAS BEEN IN CONTACT WITH THIS MATERIAL: No applicable information found.

SECTION 9 FIRE AND EXPLOSION HAZARD DATA

Material in the solid state does not present a fire or explosion hazard. Dust hazards exist under favoring conditions of small particle size. Dispersion in air and strong ignition source may result in an explosion.

NOTICE

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